

ABSTRACT

Since August 2023, air quality issues in Bandung Raya have attracted public attention due to high pollution levels that often reach the “unhealthy for sensitive groups” category. Bandung City, as the core area of Bandung Raya and one of Indonesia’s favorite tourist destinations, faces concerns over a potential decline in tourist visits, as most tourism activities are conducted outdoors. This study aims to analyze public sentiment on air quality through Twitter comment data and examine the relationship between air quality, public sentiment, and tourist visit interest. The method employed is Knowledge Discovery in Databases (KDD) with the Support Vector Machine (SVM) algorithm to build a sentiment classification model. In addition, three non-parametric tests were conducted, namely the Kruskal–Wallis test, Eta test, and Spearman correlation test, to analyze the relationship between air quality and public sentiment toward tourist visit interest. The classification model achieved high performance with an accuracy of 91.42%. The results show that public sentiment toward air quality is dominated by negative sentiment (50.5%), followed by positive (37.9%) and neutral (11.5%). Meanwhile, the results of the three non-parametric correlation tests indicate that neither air quality nor public sentiment has a significant influence on tourist visit interest. These findings suggest that negative public perceptions have not directly affected tourist behavior and that air quality is not the main factor influencing travel decisions. This study provides insights into the relationship between public sentiment and air quality with the tourism sector and can serve as a basis for formulating policies to improve air quality and develop sustainable tourism in Bandung City.

Keywords: *Sentiment analysis, air quality, tourism, Support Vector Machine, Non-parametric test.*